

DERWENT-ACC-NO: 1995-345379

DERWENT-WEEK: 200222

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TITLE: Treatment of aq. soln contg. organic acid - by formation  
of metal complex, photolysis of complex, and regeneration  
of complex with oxidising agent.

INVENTOR: BEGE, D; BERTHOLDT, H; BAGE, D

PATENT-ASSIGNEE: SIEMENS AG[SIEI]

PRIORITY-DATA: 1994DE-4410747 (March 28, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 4410747 A1	October 5, 1995	N/A	006	A62D 003/00
HU 220399 B1	January 28, 2002	N/A	000	G21F 009/06
WO 9526555 A1	October 5, 1995	G	022	G21F 009/06
FI 9603899 A	September 27, 1996	N/A	000	G21F 000/00
EP 753196 A1	January 15, 1997	G	000	G21F 009/06
SK 9601237 A3	July 9, 1997	N/A	000	G21F 009/06
<del>JP 09510784 W</del>	October 28, 1997	N/A	015	G21F 009/06
EP 753196 B1	September 30, 1998	G	000	G21F 009/06
HU 77897 T	September 28, 1998	N/A	000	G21F 009/06
DE 59503784 G	November 5, 1998	N/A	000	G21F 009/06
ES 2123970 T3	January 16, 1999	N/A	000	G21F 009/06
JP 2941429 B2	August 25, 1999	N/A	005	G21F 009/06
US 5958247 A	September 28, 1999	N/A	000	C02F 009/00
SK 282036 B6	October 8, 2001	N/A	000	G21F 009/06
CA 2186617 C	October 30, 2001	E	000	G21F 009/06

DESIGNATED-STATES: CA FI HU JP SK US AT BE CH DE DK ES FR GB GR IE IT LU MC NL  
PT SE BE CH DE ES FR LI NL SE BE CH DE ES FR LI NL SE

CITED-DOCUMENTS: DE 3501528; EP 543112 ; NL 9001721 ; WO 9113032 ; WO 9203829

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
DE 4410747A1	N/A	1994DE-4410747	March 28, 1994
HU 220399B1	N/A	1995WO-DE00417	March 28, 1995
HU 220399B1	N/A	1996HU-0002666	March 28, 1995
HU 220399B1	Previous Publ.	HU 77897	N/A
HU 220399B1	Based on	WO 9526555	N/A
WO 9526555A1	N/A	1995WO-DE00417	March 28, 1995
FI 9603899A	N/A	1995WO-DE00417	March 28, 1995
FI 9603899A	N/A	1996FI-0003899	September 27, 1996
EP 753196A1	N/A	1995EP-0914272	March 28, 1995
EP 753196A1	N/A	1995WO-DE00417	March 28, 1995
EP 753196A1	Based on	WO 9526555	N/A
SK 9601237A3	N/A	1995WO-DE00417	March 28, 1995
SK 9601237A3	N/A	1996SK-0001237	March 28, 1995

JP 09510784W	N/A	1995JP-0524904	March 28, 1995
JP 09510784W	N/A	1995WO-DE00417	March 28, 1995
JP 09510784W	Based on	WO 9526555	N/A
EP 753196B1	N/A	1995EP-0914272	March 28, 1995
EP 753196B1	N/A	1995WO-DE00417	March 28, 1995
EP 753196B1	Based on	WO 9526555	N/A
HU 77897T	N/A	1995WO-DE00417	March 28, 1995
HU 77897T	N/A	1996HU-0002666	March 28, 1995
HU 77897T	Based on	WO 9526555	N/A
DE 59503784G	N/A	1995DE-0503784	March 28, 1995
DE 59503784G	N/A	1995EP-0914272	March 28, 1995
DE 59503784G	N/A	1995WO-DE00417	March 28, 1995
DE 59503784G	Based on	EP 753196	N/A
DE 59503784G	Based on	WO 9526555	N/A
ES 2123970T3	N/A	1995EP-0914272	March 28, 1995
ES 2123970T3	Based on	EP 753196	N/A
JP 2941429B2	N/A	1995JP-0524904	March 28, 1995
JP 2941429B2	N/A	1995WO-DE00417	March 28, 1995
JP 2941429B2	Previous Publ.	JP 9510784	N/A
JP 2941429B2	Based on	WO 9526555	N/A
US 5958247A	Cont of	1995WO-DE00417	March 28, 1995
US 5958247A	N/A	1996US-0720100	September 30, 1996
SK 282036B6	N/A	1995WO-DE00417	March 28, 1995
SK 282036B6	N/A	1996SK-0001237	March 28, 1995
SK 282036B6	Previous Publ.	SK 9601237	N/A
SK 282036B6	Based on	WO 9526555	N/A
CA 2186617C	N/A	1995CA-2186617	March 28, 1995
CA 2186617C	N/A	1995WO-DE00417	March 28, 1995
CA 2186617C	Based on	WO 9526555	N/A

INT-CL (IPC): A62D003/00, B01J019/12, C02F001/32, C02F001/58, C02F001/64, C02F001/72, C02F001/78, C02F009/00, G21F000/00, G21F009/06

ABSTRACTED-PUB-NO: DE 4410747A

#### BASIC-ABSTRACT:

Treatment of an aq. soln. contg. an organic acid comprises reacting part of the acid in the soln with metal ions to form a metal complex, irradiating the metal complex in the soln with UV light to form a dissolved metal salt and CO<sub>2</sub>, and reacting the dissolved metal salt with the rest of the acid and an added oxidising agent to form regenerated metal complex and H<sub>2</sub>O. Also claimed is appts. for treating an aq. soln. contg. an organic acid, comprising a vessel (1) with an outlet (9) connected to a UV irradiation unit (5), and an oxidising agent inlet (7) which is equipped with a metering device (8) and is connected to the UV irradiation unit.

USE - The process is esp. applicable to oxalic acid solns used to decontaminate radioactively contaminated building surfaces.

ADVANTAGE - The process required no catalyst nor large amts. of solvents or ion exchangers.

ABSTRACTED-PUB-NO: EP 753196B

#### EQUIVALENT-ABSTRACTS:

Treatment of an aq. soln. contg. an organic acid comprises reacting part of the acid in the soln with metal ions to form a metal complex, irradiating the metal complex in the soln with UV light to form a dissolved metal salt and CO<sub>2</sub>, and reacting the dissolved metal salt with the rest of the acid and an added oxidising agent to form regenerated metal complex and H<sub>2</sub>O. Also claimed is appts. for treating an aq. soln. contg. an organic acid, comprising a vessel (1) with an outlet (9) connected to a UV irradiation unit (5), and an oxidising agent inlet (7) which is equipped with a metering device (8) and is connected to the UV irradiation unit.

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US 5958247A

Treatment of an aq. soln. contg. an organic acid comprises reacting part of the acid in the soln with metal ions to form a metal complex, irradiating the metal complex in the soln with UV light to form a dissolved metal salt and CO<sub>2</sub>, and reacting the dissolved metal salt with the rest of the acid and an added oxidising agent to form regenerated metal complex and H<sub>2</sub>O. Also claimed is appts. for treating an aq. soln. contg. an organic acid, comprising a vessel (1) with an outlet (9) connected to a UV irradiation unit (5), and an oxidising agent inlet (7) which is equipped with a metering device (8) and is connected to the UV irradiation unit.

USE - The process is esp. applicable to oxalic acid solns used to decontaminate radioactively contaminated building surfaces.

ADVANTAGE - The process required no catalyst nor large amts. of solvents or ion exchangers.

TITLE-TERMS: TREAT AQUEOUS SOLUTION CONTAIN ORGANIC ACID FORMATION METAL COMPLEX PHOTOLYSIS COMPLEX REGENERATE COMPLEX OXIDATION AGENT

DERWENT-CLASS: D15 E19 K07 P35

CPI-CODES: D04-A01P; D04-B07; E05-L02A; E10-C02D1; K07-B;

CHEMICAL-CODES:

Chemical Indexing M3 \*01\*

Fragmentation Code

A426 A960 C710 J0 J012 J1 J172 K0 L5 L560

M1 M280 M320 M411 M424 M510 M520 M530 M540 M620

M630 M720 M740 M903 M904 N104 N141 N411 Q437 Q439

Q444

Markush Compounds

199545-A1101-P

Chemical Indexing M3 \*02\*

Fragmentation Code

J0 J012 J1 J172 K0 L5 L560 M280 M320 M416

M424 M620 M740 M781 M903 M904 M910 Q437 Q439 Q444

Specific Compounds

01152U

Registry Numbers  
1152U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1152U; 1732U ; 1887U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1995-151814

Non-CPI Secondary Accession Numbers: N1995-258151